

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

**Translation**

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year) 23.03.2004

Applicant's or agent's file reference  
PRK1590P

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/JP2004/001853

International filing date (day/month/year)  
19.02.2004

Priority date (day/month/year)  
20.02.2003

International Patent Classification (IPC) or both national classification and IPC  
F19J9/06, F02F5/00

Applicant  
KABUSHIKI KAISHA RIKEN et al

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA/  JP	Date of completion of this opinion	Authorized officer
Facsimile No.	Telephone No.	

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Box No. I

Basis of the report

1. With regard to the **language**, this opinion has been established on the basis of:
  - ☐ the international application in the language in which it was filed
  - ☐ the translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material
    - ☐ on paper
    - ☐ in electronic form
  - c. time of filing/furnishing
    - ☐ contained in the international application as filed
    - ☐ filed together with the international application in electronic form
    - ☐ furnished subsequently to this Authority for the purposes of search
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-9	YES
	Claims	NO
Inventive step (IS)	Claims	YES
	Claims 1-9	NO
Industrial applicability (IA)	Claims 1-9	YES
	Claims	NO

2. Citations and explanations:

Document 1: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 161323/1983 (Laid-open No. 69350/1985) (Isuzu Motors Ltd.), 16 May 1985

Document 2: JP 45-10482 Y1 (Wellworthy Ltd.), 14 May 1970

Document 3: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 98592/1989 (Laid-open No. 38456/1991) (Teikoku Piston Ring Co., Ltd.), 15 April 1991

Claims 1, 2, 4-7 and 9

The inventions set forth in claims 1, 2, 4-7 and 9 do not involve an inventive step in the light of documents 1-3, cited in the international search report. A person skilled in the art could easily conceive of using a shoulder (5) or projections (29 and 30) disclosed in document 2 or an arc-shaped guide groove (54) disclosed in document 3, in an invention disclosed in document 1.

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

Claims 3 and 8

The inventions set forth in claims 3 and 8 do not involve an inventive step in the light of documents 1-3, cited in the international search report. Since document 2 discloses the feature of producing a ring having an integral spring, to give a ring that can be fitted to the piston in a single operation, and document 3 discloses the feature of enlarging the abutting opening when fitting, and the fact that there should be no danger of dislocation, the decision as to the minimum dimensions, the maximum dimensions and the outside dimensions of the coil expanders, from the point of view of ease of fitting thereof and preventing dislocation, are such as could be suitably made in practice by a person skilled in the art.

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Box No. VI Certain documents cited

1. Certain published documents (Rule 43bis.1 and 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
JP 2003-287128 A	10.10.2003	19.02.2004	20.02.2003

2. Non-written disclosures (Rule 43bis.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: